PRECIOUS METALS CONSORTIUM
PRECIOUS METALS REFINERS MEETING
Chair: Mark Raffray (Johnson Matthey)
Co-chair: Jeff Levison (Vale Inco)
Secretariat: Caroline Braibant (EPMF)

12th of December 2007, 10:00 - 13:00

MINUTES

Participants:

Caroline Braibant	EPMF	Belgium
Bob Binney	Johnson Matthey	United Kingdom
Edwin Broekaert	Umicore	Belgium
Iain Guille	Vale Inco	United Kingdom
Gerhard Gutekunst	Wieland Dental & Technik	Germany
Andrew Griffiths	Umicore	Germany
Sarah Hottenroth	Umicore	Germany
Agnieszka Kasztelan	KGHM	Poland
Jeff Levison	Vale Inco	United Kingdom
Mark Mistry	Norddeutsche Affinerie	Germany
Aurélie Normand	Metalor	France
Mark Raffray	Johnson Matthey	United Kingdom
Ludwik Ryng	KGHM	Poland

1. PRELIMINARIES AND INTRODUCTION

1.1. Confidentiality and European Competition Law provisions. The attendees were reminded on their commitment to comply with Confidentiality and Competition Law provisions.

1.2. Additional ground rules as requested by any party. The attendees were invited to limit the discussions to those subjects and details which are not considered to be confidential and to freely indicate it if they wish to remain silent on any item. For transparency all attendees of the meeting will be invited to comment on the draft minutes of this meeting before they are approved and circulated.

1.3. Objective, framework and nomenclature for the meeting. M. Raffray presented the main expectations and objectives for the meeting. J. Levison reminded the attendees to use REACH nomenclature and to avoid using names such as "concentrate" for anything which is not a concentrate under REACH.

1.4. Approval of the Agenda. The Agenda was approved.

2. ON-SITE ISOLATED INTERMEDIATES IN PM REFINERIES

2.1. Are they all intermediates as per REACH definition? To date, only a few members of the PM Consortium (PMC) have currently submitted lists of intermediates relevant to refinery processes. In further discussions, *the applicability of "isolated" versus "non-isolated" (depending on level of containment? level of exposure?) and "on-site" versus "transported" (depending on whether transport, loading and unloading are part of or excluded from the scope of REACH) to intermediates should be clarified.* Eurométaux' has commissioned a legal advisor to clarify to what extent transport, loading and unloading are or not covered by transportation legislation and therefore, out of the scope of REACH (cf. Annex 1). Moreover, the PMC PM refiners should make sure any recommendation leading to an aligned pre-registration is promptly made available to all PMC members. **Are they handled under "strictly controlled conditions"? Both wet and dry handled intermediates?** Eurométaux is currently working on a guidance to assist the NFM Industry in evaluating how their intermediates are or not handled under strictly

controlled conditions (OEL's, PPE, CMR vs non-CMR debate, etc.). This discussion will evolve once the guidance has been made available to the attendees (cf. Annex 2). Following internal revision, the group should decide whether (1) to recommend the guidance or not and (2) whether any addenda should be made to the guidance in order to make it applicable to PM-specific processes.

2.2. Are they well defined single compounds (i.e. mono-constituent substances) or are they more complex? Some are mono-constituent substances and others are more complex and should be regarded as mixtures of intermediates, as multi-constituent substances or as UVCB. The objective is to identify the most suitable category to be assigned to each intermediate in an harmonised manner under the PMC.

2.3. How complex can they be? Does each refiner know the composition range of their complex intermediates reliably? Complexity varies from typical known mono-constituent substances to classical refinables containing several compounds, showing determinate organic and/or inorganic fractions and speciations. Although some are well known, some refinables remain poorly speciated in composition.

2.4. How broad can composition range be in order to still claim sameness? How to organise complex intermediates? Composition ranges clearly trigger REACH categories: mono-constituency applies to narrower ranges whereas multi-constituency applies to medium ranges and UVCB applies to larger ranges. It is up to the PMC refiners members to agree on one harmonised approach and eventual alternatives to the harmonised view.

2.5. Applicability and risks linked to the concept of "UVCB". The UVCB REACH category can in some cases be applied to complex refinables. *The Secretariat will inquire whether ECHA foresees to have any suspicion on the materials registered as UVCB.*

2.6. Interpretation of "any existing available information", leading to GHS classification of intermediates and composition of a "light Registration Dossier". The legal advice commissioned by Eurométaux is also intended to clarify what "any existing available information" means when preparing a Registration Dossier to register an intermediate (cf. Annex 1), i.e. whether this is (a) limited to that in the hands of the registrant and other freely accessible sources; or (b) if it is necessary for the registrant to actively seek/purchase data from third parties, consortia and SIEF.

2.7. End-of-life on-site isolated intermediates: cf. item 3.2. Some on-site isolated intermediates can be disposed and therefore be considered as waste. Additional discussions are explored under item 3.2.3.

3. REFINERY INPUTS AND OUTPUTS OR TRANSPORTED ISOLATED INTERMEDIATES

3.1. Inputs: primary and secondary feeds

3.1.1. Primary feeds - Basic assumptions:

- **Are not classifiable as waste.** Tacitly agreed by all attendees.
- **Will be "chemically modified" derivates of ore concentrate.** Attendees were informed on Eurométaux' factsheet on "Not chemically modified". This factsheet provides a table which enables to distinguish those industrial processes which can be considered as involving a chemical modification of the materials, from those which do not. The table describes a harmonised understanding compiled by the NFM Industry.

3.1.2. Primary feeds - Obligations under REACH:

- **Importer of the ore concentrate derivate must register, unless non-EU**

supplier has appointed an Only Representative. Tacitly agreed by all attendees.

- **Can the feeds be registered as transported isolated intermediates? Are they strictly controlled?** Each company member of the PMC is free to follow the "transported isolated intermediate" route if applicable under REACH. The use of this REACH category depends on the legal advice Eurométaux has commissioned in 2.1 and on how far "transport" is considered under REACH. Ensuring strict control throughout the entire life-cycle of the intermediate depends on whether transport, loading and unloading are under the scope of REACH.

3.1.3. Secondary feeds - EU-sourced:

- **REACH obligations, if any, fall on the upstream EU supply chain**. Tacitly agreed by all attendees.
- **If feeds supplied as waste, outside of scope of REACH → Up to PM refiner to treat them as waste and meet Waste regulatory requirements.** In circumstances where a feed is re-categorised from waste to non-waste (perhaps as an exceptional transaction, or where it co-existed as waste and non-waste streams), it would be subject to REACH. However, wastes themselves if properly categorised must be out of scope and therefore not subject to registration. REACH and Waste categories can co-exist as long as both regulations are complied with and a justification for each route is available.
- **If feeds supplied as non-waste, subject to REACH → Up to supplier to ensure feed is registered and information is available up and down the supply chain.** Tacitly agreed by all attendees. Within REACH, the "transported isolated intermediate" route should be indicated as a beneficial option, provided criteria are met.

3.1.4. Secondary feeds - Non EU-sourced:

- **REACH obligations, if any, fall under the EU-based Importer, i.e.: PM Refinery (unless non-EU supplier has appointed an Only Representative).** Tacitly agreed by all attendees.
- **How to classify the Secondary feed? What cooperation can be envisaged in this regard with the non-EU supplier?** Whether the Waste route or the REACH route is followed, and especially within the REACH route, the supplier should make sure the classification and registration of the material he supplies to the EU-based PM refiner is suitable and compatible with the activities of the latter. The most likely scenario is that the refiner makes the registration for such streams, with that company being responsible for acquiring and checking the information from the non-EU source. Within REACH, the PMC should recommend the "transported isolated intermediate" route where conditions for this categorisation apply.
- **Assuming there is a choice, what are the advantages and disadvantages of classifying feeds as wastes or as non-wastes? To what extent does this choice exist? Revision of Waste Framework Directive is seeking to address "when waste ceases to be waste".** In some cases, there is a choice. Some materials are both in the Waste catalogue and have been assigned an EINECS entry. Both REACH and Waste categories can coexist for the same material. A transparent and suitable justification to document why one, the other, or both routes, have been followed must however be ensured. Although following the REACH route involves the Registration costs (both the preparation of the dossiers and the cost

of registering as such), the Waste route involves:
- Need of a permit to treat waste at a specific installation;
- Shipment of waste to the EU is subject to several stringent obligations;
- Risk of transport being stopped because the supplier has not classified its material as waste;
- Risk of future restrictions on waste ("trade barrier");
- Possible risk of legal challenges (need to prove a material is indeed a waste, when different MS disagree);
- Risk of losing businesses and companies outside of EU.

3.2. Outputs: transported isolated intermediates, substances and/or waste

3.2.1. Substances: most PM Consortium member products are mono-constituent substances under REACH (e.g.: pure metals and metal compounds in their various forms) → Registration obligation falls on PM Refiner, manufacturer under REACH. Tacitly agreed by all attendees.

3.2.2. Transported isolated intermediates: some output materials can be regarded as transported isolated intermediates as long as they are meant to be transformed into another substance and both the manufacturer and the downstream user can demonstrate strict control → Harmonised approach from PM Refiners highly recommended. It was clarified that only downstream users established within the EEA need to be able to demonstrate strict control of the intermediates they are supplied with. The harmonised approach is guided though a decision tree as presented under item 3.2.3.

3.2.3. Outputs falling in the Waste/non-Waste debate:
- **Waste status take outputs out of scope of REACH (but under Waste legislation) and opens door to treating end-of-life on-site intermediates as waste.**
- **Not new but intense debate, independent of REACH → Consistent, justifiable approach from PM Refiners highly recommended.**

The proposed decision tree in order to reach a harmonised and justified approach to categorise PM materials as Waste or under the REACH regulation is available in Annex 3.

4. NEXT MEETING AND WAY FORWARD

4.1. List of complex refinables/recoverables produced and used by the PM Consortium members. Some PMC members have already sent their list of complex refinables, to be evaluated by the PM refiners within the Consortium. Key examples can be identified amongst these: anode slime, PM sweeps, flue-dust, matte. Depending on their composition (especially anode slime), interconsortia work can be envisaged. In other cases, it is entirely up to the PMC to apply the decision tree presented above and agree on a harmonised categorisation of these materials.

4.2. Examples: technical discussion – Confidentiality! A list of examples was prepared by the Trustee, based on the all the interpretation questions she has received from some PMC members, inquiring on the best way to classify some PM materials under REACH. During the meeting, anode slime, PM sweeps, flue dust and matte were considered to be classical examples to be used when launching a second discussion amongst PM refiners and testing the decision tree presented above. It was agreed to meet again on the 12/02/07. Generic

flow diagrams describing the production of such refinables should be made available for the discussion.

5. AOB, AGREEMENTS REACHED AND CONCLUSION

- The PMC members agreed to identify a harmonised but not exclusive way for complex refinable materials to comply with European legislation: waste and/or REACH. As required, a guidance for PM refiners will be prepared by the group.
- The obligation to comply with waste and/or REACH regulation lies with each legal entity. Whatever route is followed should be the result of an internal evaluation and it should be fully justified.
- The discussions held at the meeting allowed the building of a decision tree integrating key checkpoints based on waste and REACH categories. A draft version of this tree is available in Annex 3.
- The decision tree as well as a technical assessment of how to manage a series of typical examples of complex refinables will be used as a basis to launch the discussions at a following meeting.
- In principle, all attendees supported a broad use of the "transported isolated intermediate" route as a pragmatic solution where REACH registration appeared to apply, and the conditions of the refining scenario permitted such a categorisation (i.e. transformation to another chemical entity, and existence of conditions of strict control).